

WHAT IS CLAIMED IS:

1. A high-density chip scale package comprising:

a die having a circuit pattern formed thereon;

5 a printed circuit board adapted for mounting the die thereon, the printed circuit board having an area 100 % to 150 % as large as an area of the die, the printed circuit board having a circuit pattern formed thereon;

10 a heat sink mounted on the die for radiating heat from the die; and

an encapsulant filled between the printed circuit board and the heat sink for securely connecting the printed circuit board and the heat sink and shielding the printed circuit board from the outside.

15 2. The package as set forth in claim 1, wherein the die is attached on the printed circuit board by means of a heat-conductive epoxy bonding agent.

20 3. The package as set forth in claim 1, wherein the encapsulant is an epoxy liquid encapsulant.

25 4. The package as set forth in claim 1, wherein the printed circuit board includes wire bonding pads so that the die is electrically connected to the printed circuit board by

means of wires for connecting the die and the wire bonding pads.

5        5. The package as set forth in claim 1, wherein the die includes a plurality of solder balls formed at the bottom surface thereof so that the die is electrically connected to the printed circuit board by means of the solder balls.

10       6. The package as set forth in claim 5, further comprising a liquid encapsulant filled in the space defined between the die and the printed circuit board.

15       7. The package as set forth in claim 1, wherein the printed circuit board has solder balls formed at the bottom surface thereof for mounting the printed circuit board having the die mounted thereon to another printed circuit board.